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Influence of Locus of Control and Computer Skills on the Use of Internet Resources by Undergraduate Students in Nigerian Universities

O.O. Adeagbo

Introduction

University students have been at the forefront of social change since the end of World War II. They were among the first in the United States to use the Internet for communication, recreation, and file sharing, and the first to have regular broadband Internet access (*The Chronicle of Higher Education*, Almanac Issue 2001-2). Internet use first became widespread on university campuses in the 1990s, and in many ways the Internet is a direct outcome of university-based research. Yahoo, Napster, and many other Internet tools were created by university students, while the vast majority of university students are simply Internet users, as a group they can be considered pioneers.

A survey carried out in USA (Rainie and Packel 2001) shows that the demographic profile of today's university students is not much changed over the past decade. One characteristic that sets them apart from past generations of university students is their degree of familiarity with the Internet. Most of the 18-year-old university first year students of today were born years after the personal computer was introduced to the public, and they are less aware of a "pre-Internet" world as they are of one in which the Internet also called the "Net" is central to their communication. A count put the number of Internet users in United States at over 104 million and everyday, 50 million Americans go online (Rainie and Packel 2001). Statistics show that Africa as a continent has recorded an Internet user growth of 171.4% between year 2000 – 2004, but accounts for only 1.5% of the world Internet usage. Asia is at the foremost with 32.0%, while North America and Europe has 28.1% and 27.9% respectively of the Internet users in the world (Fatoki, 2004).

The Internet, sometimes called simply "the Net," is a worldwide system of computer networks - a network of networks in which users at any one computer can, if they have permission, get information from any other computer (and sometimes talk directly to users at other computers). It was conceived by the Advanced Research Projects Agency (ARPA) of the U.S. government in 1969 and was first known as the ARPANET. The original aim was to create a network that would allow users of a research computer at one university to be able to "talk to"

research computers at other universities (The Internet Society, 2002).

The Internet can now be accessed virtually anywhere by numerous means. Mobile phones, data cards, handheld game consoles and cellular routers allow users to connect to the Internet from anywhere there is a cellular network supporting that device's technology. Other Internet resources include email, www (World Wide Web), file sharing, streaming media, collaboration, remote access, voice telephony, webcams and so on. Studies done on the use of Internet resources among Nigerian students show that the use of computer and the Internet to aid their academic activities is gradually becoming acceptable but the students have not fully used these facilities (Ajuwon, 2003).

Literature has shown that the use of Internet by students can be influenced by certain variables like demographic characteristics such as age, sex, marital status, educational qualification, computer skills, accessibility to computer and the Internet. In addition, Katz (1998) indicated that student attitudes such as self-image, social-image, self-confidence, locus of control, satisfaction, and motivation are those, which lay the foundation and contribute towards the willingness of students to use information and communication technology in learning.

Basic personal computer skills are prerequisite to using the Internet, though in practice these skills are often acquired together, as the popularity of the Internet motivates many adults to use computers for the first time. Motor skills (learning to use a keyboard, learning to manipulate a mouse) and perceptual skills (learning to associate images and events on the computer screen with motor actions) form the most elementary substrate.

Locus of control is a person's perceived control over his or her own behaviour (Rotter 1966). It is the orientation that a person holds as to where control over life events is relative to the self—internal or external meaning, self-control, or other-controlled. It is also defined as a psycho logic concept that defines people as having either an internal or an external locus of control, depending on whether they are more self-reliant and independent or more communally focused and dependent on others. The classification *internal locus* indicates that the person feels in control of events; *external locus* indicates that others are perceived to have that control.

Studies carried out by researchers on the relationship between locus of control and the use of Internet among students are inconclusive and are basically in U.S and other western countries. In Nigeria however, studies conducted on the use of Internet by students in Nigerian universities and factors that affect its use are scanty. It is against this background therefore that this research study is carried out.

Objectives of the Study

The objectives of this study are:

- I. To determine the level of use of Internet resources by university students.
- II. To determine the type of locus of control that is prevalent among students
- III. To ascertain the level of computer skills possessed by the students
- IV. To determine the influence of locus of control on students use of the Internet resources.
- V. To assess the influence of computer skills possessed by students on the use of Internet resources.

Research Questions

This study will be used to answer the following questions:

1. What Internet resources do the undergraduate students make use of?

2. How often do they use these Internet resources?
3. Which search engine do undergraduate students in Nigeria Universities use most?
4. Do they use the computer?
5. How long have they been using the computer?
6. How often do they use it?
7. How did the undergraduate students get their computer training?
8. What level of competence of computer skills do the undergraduate students possess?
9. What type of locus of control is prevalent among undergraduate students in Nigerian universities?
10. What are the Internet related tasks that Nigerian students mostly use the Internet resources for?
11. Does possession of computer skill have any significant relationship with the use of Internet resources by undergraduate students in Nigerian universities?
12. Is there any significant difference between undergraduate students who have an internal locus of control and those who have an external locus of control on the use of the Internet resources?

Literature Review

Advances in telecommunication technology in the last two decades have led to the development of computer networks that allow access to vast amount of information and services (Gershaw, 1989). Of the many computer networks that have been developed, the most prominent and widespread is the Internet, a global network of networks that enables computers of all kinds to directly and transparently communicate throughout the world. This 'global network of networks' has been described as the 'Information Super-highway' or 'Infobahn' because it constitutes a shared global resource of knowledge, and means of collaboration and co-operation in diverse communities. It is an open and unregulated community of people who communicate freely across an international electronic computer network (Coiera, 1995). It is simply the linking together of individual computers in a network (Mckenzie, 1997).

The Internet was originally conceived by the United States of America's military in the sixties, as a means of ensuring a workable communication system in the event of a strike by enemy missiles or forces (December, 1994). It has grown over the years to include academic and government computers as well as anyone who owns a computer, a modem and an account with an Internet Service Provider. Although there is no precise statistics, it is estimated that there are at least 100,000 networks, attached to more than 5 million computers located in over 100 countries, connected to the Internet. While access to the Internet was originally restricted to government departments, and organizations such as universities, in the 1990s it became available to those with access to a computer network, in both the developed and developing countries (Millman, 1995).

Statistics show that Africa as a continent has recorded an Internet user growth of 171.4% between year 2000 – 2004, but accounts for only 1.5% (and the lowest) of the world Internet usage. It has been reported that Nigeria, a country in Africa continent, with an estimated population of 146,255,306 has 10,000,000 Internet users (6.8% of the population per ITU) as against the 200,000 in December 2000, representing a user growth of 275% (Africa Internet Usage and Population

Use of Internet Resources by Undergraduates

Research by the Pew Internet & American Life Project (Rainie, and Packel 2001) has shown that students seem generally positive about the Internet and its impact on their educational experience. The study revealed that majority of university students has a positive attitude toward the Internet and its communication tools. They are comfortable with Internet communication, and even report finding enjoyment while using it for academic and personal reasons. Their Internet habits are split between academic and social uses, and they find it functional for both purposes. An overwhelming number of students feel that Internet communication has positively enhanced their college academic experience.

The Internet is used in many cases to supplement students' academic activities and provide some alternatives for professors and students looking to bring new life to familiar educational experiences. For example, two-thirds (68%) of students reported that they have subscribed to one or more academic-oriented mailing lists that relate to their studies. They use these lists to carry on email discussions about topics covered in their classes (Jones, 2002).

The journey to Internet connection and use started in Nigeria in 1995, and since then many organizations and educational institutions have been labouring to achieve connectivity to enhance their corporate productivity and objectives (Fatoki 2004). Few Universities have achieved satisfactory Internet connectivity, though some through dial up and others through wireless options (Oduwole, 2002). Jagboro (2003) in her study of Internet usage in Nigerian Universities observed that both postgraduate and undergraduate students of Obafemi Awolowo University, Ile Ife, use Internet for research purposes. Similarly, Adomi (2003) in a survey of cyber cafés in Delta state of Nigeria, reported that 77.8% of the customers/users of the cyber cafés were students. Luban (2000) reported that Internet had positive influence on the students' academic work. Students have access to more information like online reference materials and sources.

The Internet provides improved information on current events and the latest opinions since it is easily gotten to, fun, interesting and it exposes students to a greater variety of materials and predisposes them to do more reading.

Locus of Control and Use of Internet Resources

Rotter (1996) originally described the psychological construct of locus of control as an element of personality. Locus of control refers to the perception of the extent to which individuals can control events in their lives. Individuals with an internal locus of control judge outcomes of events to be internally controllable. That is, they believe that their own personal efforts, behaviours, or skills will influence and determine outcomes, and they take responsibility for their actions. Individuals with an external locus of control attribute events to external sources. They believe and behave as if forces beyond their control such as chance, luck, fate, or others with greater power represent the important factors in determining the occurrence of reinforcing events (Rotter, 1966). As such, their own effort or abilities are perceived to have little effect on how events play out. An important feature of locus of control is that it is not reality that is being measured but rather an individual's perception of control over reality. So, if they think they can control what happens in their lives, they behave as though they can (Wallace, 1999). Most people lie somewhere in between these two extremes, believing that both personal effort and outside circumstances will affect the outcomes in their lives.

Other findings suggest that evaluating online behaviour in the context of an individual's locus of control may have important consequences for Internet policy. It was found that an internal locus of control was positively related to acquiring

information. It is believed that Internals who use the Internet may make better decisions and feel more empowered in general and as student in particular, than Internals who do not use the Internet (Hoffman, Novak and Schlosser, 2000).

Understanding what underlying function the Internet serves for Internals and Externals can assist scholars in important applications such as the design of more effective, educative and policy-oriented Web sites. Hoffman, Novak and Schlosser (2000) stated that for Internals, navigational ease in the search process and cross-references between on- and offline sources may be most positively related to the ability to influence these students. For Externals, navigational ease in browsing seamlessly without needing to make choices may be positively related to influence. Furthermore, the primary communication goal for university students made up primarily of Internals versus Externals may be different according to Levenson (1974). For example, the more relevant goal for Internals may be to enhance on/offline activism while for Externals, the primary goal may be to build a large online audience, which can be influenced through creative, carefully targeted content.

Welsh (1999) investigated the relationship between Internet use, coping style, expectancies, and locus of control among undergraduates at a large private university in the northeast where Internet dependence was defined as students demonstrating at least 3 criteria from a list of 7 items. From an initial sample of 1006 participants, 83 students were identified as scoring in the Internet dependent range, 42 of which completed the entire study. Using the Rotter (1966) internal-external control scale, no difference was found between the 42 dependent and a matched sample of 42 nondependent Internet users. However, there was a tendency for dependent users to have a more external locus of control, a finding which approached significance.

Computer Use, Computer Skill, and Use of Internet Resources

The use of the computer and Internet is rapidly becoming a key component among the university students in many parts of the world. The level of computer skills among the students has been found to influence the use of Internet. In a study carried out in Nigeria (Ajuwon, 2003), only 43% of the sample could use the computer. The relatively lower proportion of those who could use the computer may be a reflection of a limited access to computers among first year health sciences students in Nigeria. The relatively high cost of this product within the country is one of the primary reasons for this situation. Increased funding to Universities by government and Non-Governmental Agencies (NGA) is likely to solve this problem. This would enable Nigerian universities to set-up computer laboratories in various faculties where students can have full access to Internet services as it is done in other countries including America

Similar studies in Finland and Malaysia also showed that there is higher proportion of students using computer for their studies (Nurjahan, 2002). According to Ajuwon (2003) and Nurjahan, (2002) more medical students, than student nurses had used both the computer and the Internet. In addition, more medical students than student nurses regularly obtained health-related information from the Internet.

Computer skills refer to one's ability to use the software (and sometimes hardware) of a computer (Davis, 1999). They include basic computer skills like knowing how to switch on the computer, being able to use a mouse to interact with elements on the screen, being able to use the computer keyboard and being able to close down the computer after use. Intermediate skills include being able to use the word processor, e-mail, spreadsheets, databases, and the use the Internet, while advanced skills include programming and the use of computer for scientific research.

Constraints on Internet Use

Statistics (The World Bank, 2004) indicate that Internet use depends on the financial situations of countries. For example, some values on the Internet accessibility of overall population are 75.6% in Sweden, 61.4% in Holland, 68.7% in Japan, 50% in Germany, 17.7% in Greece, 14.2% in Turkey, 11.1% in Russia, 10.9% in Thailand, 6.6% in Saudi Arabia and 4.5% in Kenya. Internet unfamiliarity is another problem that causes lack of training in second language classroom. In other words, little experience on the Internet is an anxiety source for both second language learners and teachers. Third, since the Internet offers all types of information, some of them have no intellectual basis. Though serious precautions are taken today, this is still an important problem for students and everybody in general (Singhal, 1997). Last and fourth, the increasing amount of information generally makes learners confused while they try to reach specific information (Chafe, 1999). Consequently, problems of Internet use focus on computer unavailability, lack of Internet accessibility and training, computer anxiety, computer unfamiliarity of both teachers and students and some financial obligations.

A major hindrance to Internet connectivity on the African continent has been identified to be poor communication infrastructure but despite this, Jensen (1996) observed that over half of African countries have developed some form of low-cost-dial-up store and e-mail service with a gateway to the Internet. The journey to Internet connection and use started in Nigeria in 1995, and since then many organizations and educational institutions have been labouring to achieve connectivity to enhance their corporate productivity and objectives.

Methodology

Research Design

The research design chosen for this study is survey method. In this study, the researcher investigated the locus of control and computer skills of students and how they influence Internet use of students in the selected institutions.

Sampling Procedure and Sample Size

The study population consisted of undergraduate students in three universities in Nigeria. Simple random sampling was used to select undergraduate students from the three universities in Osun State, Nigeria, Obafemi Awolowo University, UNIOSUN and BOWEN. In each of the universities, the departments were randomly selected from the faculties. A total number of 201 students were used for this study.

Research Instruments

The research instrument used for this study was questionnaire. The questionnaire consists of five sections. Section A has items which elicited information on the background of the respondents. These include information on name of institution, faculty, department, level, age and sex. Section B is on computer use, Section C is on computer skill scale, Section D is the Rotter's Internal-External locus of control scale (I-E scale) and Section E is on Internet use. Section D which is on locus of control measure is a validated questionnaire by Julian Rotter and it has been in use since 1966. The scale has an internal consistency of 0.73.

Data Collection and Analysis

The researcher administered 70 copies of the questionnaire in each university. This is to forestall unnecessary errors in the administration of the questionnaire. 210 copies of questionnaire were administered to the students, 201 copies were returned. This constitutes 96% response. The Rotter's locus of control scale is scored by attaching a score of "1" to external choice on an item, and a score of "0" to an internal choice of item. This was done for all the items except the filler items (1, 14, 19, 24 and 27), which were not scored. This implies that the highest score obtainable (for the most external) is 24 while the minimum score obtainable (for most internal) is zero, that is scores between 0 – 12 indicates internal locus of control while scores from 13 – 24 indicates external locus of control. This means the lower the score, the more internal the personality and the higher the score the more external the locus of control. Data gathered in respect of research questions for this study were analyzed using descriptive statistical procedures like tables, percentages and inferential statistics correlation analysis using the Statistical Package for Social Sciences (SPSS).

Findings

The institutions selected for the study include Obafemi Awolowo University, Ile-Ife, Osun State University, Osogbo, and Bowen University, Iwo. Table 1 shows the full details of the profile.

TABLE 1A: PROFILE OF UNIVERSITIES SELECTED

Universities	Frequency	Percent
Bowen University	69	34.3
O.A.U.	66	32.8
Uniosun	66	32.8
Total	201	100.0

From the distribution Table 1, it can be observed that the respondents from the three schools have almost equal representation. 34.3% (69) are from Bowen University, Iwo while 32.8% (66) are from Obafemi Awolowo University, Ife and University of Osun State, Osogbo respectively.

TABLE 1B: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

1. Sex	Frequency	Percent
Male	124	61.7
Female	77	38.3
Total	201	100.0
Age		
15-19	62	30.8
20-24	117	58.3
25-29	19	9.5
30-34	3	1.5

Total	201	100.0
Level		
100 Level	69	34.3
200 Level	56	27.9
300 Level	33	16.4
400 Level	39	19.4
500 Level	4	2.0
Total	201	100.0

The demographic characteristics of the respondents as presented in Table 1b showed that male respondents were 61.7% (124) almost twice that of the female respondents which is 38.3% (77). Those within the age range of 20-34 years constitute the highest number of respondents of the study with 58.3% (117) and the least age range of respondents was those within the age range 30-34 years with 1.5% (3). Most of the respondents 34.3% (69) were in 100 level, while the least 2% (4) were in 500 level.

TABLE 1C: RESPONDENTS' FACULTIES

Faculties	Frequency	Percent
Environmental Design & Management	16	8.0
Administrative	11	5.5
Social science	23	11.4
Education	5	2.5
Sciences/Health Sciences	95	47.3
Art	5	2.5
Agriculture	31	15.4
Technology	15	7.5
Total	201	100.0

The different faculties selected randomly are presented in Table 1c. Out of 201 respondents, 47.3% (95) were from Sciences/Health Sciences faculties, while the least respondents, that is, 2.5% (5) were from the faculties of Arts and Education.

TABLE 2: THE PERCENTAGE ANALYSIS OF INTERNET RESOURCES USED BY UNDERGRADUATE STUDENTS IN NIGERIA UNIVERSITIES

Internet Facilities	Yes		No	
	%	Frequency	%	Frequency
1. Email	82.1	165	17.9	36
2. Discussion/News groups	21.4	43	78.6	158

3. File transfer between computers	29.9	60	70.1	141
4. Gopher	4.0	8	96.0	193
5.Telenet (connecting to remote computers)	6.5	13	93.5	188
6. WWW (Web Browsing)	75.6	152	24.4	49
7. Others	1.5	3	98.5	198

As shown in Table 2, the Internet resources mostly use by the undergraduate students in Nigeria Universities is the Email 82.1% (165) and Web browsing 75.6% (152). The least of the resources being use by the undergraduate students are Telenet, 6.5% (13) and Gopher 4.0% (8).

TABLE 3: THE PERCENTAGE ANALYSIS OF USE OF INTERNET RESOURCES BY UNDERGRADUATE STUDENTS IN NIGERIA UNIVERSITIES

	Daily	Weekly	Monthly	Rarely	Never
Internet Facilities	%	%	%	%	%
1. Email	13.4	46.8	19.9	16.4	3.5
2. Discussion/News groups	6.5	19.4	12.9	31.8	29.4
3. File transfer between computers	17.4	16.4	11.4	26.4	28.4
4. Gopher	2.0	2.0	2.0	20.4	75.6
5.Telnet (connecting to remote computers)	3.0	5.0	4.0	19.9	68.2
6. WWW (Web Browsing)	22.4	43.3	19.4	10.9	4.0

Table 3 shows that for the respondents that use Email, 46.8% use it weekly, 19.9% use it monthly while 13.4% use if daily. For the respondents that use Web browsing, 43.3% use it weekly, 22.4% use it daily while 10.9% use it monthly. Those that use file transfer between computers, 17.4% use it daily while 16.4% use if weekly. Only 2.0% of the respondents use Gopher daily, weekly or monthly.

TABLE 4: THE PERCENTAGE ANALYSIS OF AVERAGE TIME SPEND PER SEARCHING SESSION BY THE UNDERGRADUATE STUDENTS

Time	Frequency	Percent
Less than one hour	30	14.9
One hour	59	29.4
Two hours	63	31.3
Three hours	13	6.5
Above four hours	19	9.5
Others	17	8.5
Total	201	100.0

Table 4 shows the average time spend per searching session by the respondent when using Internet resources. 31.2% (63) spent an average of two hours per

searching session, 29.4% (59) spent one hour while 14.9% (30) of the respondents spent less than one hour per searching session.

TABLE 5: THE PERCENTAGE ANALYSIS OF RANK ORDER FOR THE SEARCH ENGINE USED BY UNDERGRADUATE STUDENTS

Search Engines	Frequency	Percent
Google	83	41.3
Yahoo	81	40.3
Ask Jeeves	10	5.0
Ask.com	8	4.0
Excite	6	3.0
Alta Vista	4	2.0
Northern Light	3	1.5
Dogpie	2	1.0
Looksmart	2	1.0
MSN	2	1.0

Majority of the undergraduate students, 41.3% (83) and 40.3% (81) make use of Google and Yahoo search engine respectively. Table 5 also indicated that the search engines rarely used are Northern light, MSN, Dogpie and Looksmart having between 1.0 to 1.5% (2 - 3) of the respondents.

TABLE 6: THE PERCENTAGE ANALYSIS OF COMPUTER USAGE BY UNDERGRADUATE STUDENTS IN NIGERIAN UNIVERSITIES

Item	Frequency	Percentage
Do you use computer?		
Yes	198	98.5%
No	3	1.5%

Concerning the computer usage by the undergraduate students in Nigeria Universities, 98.5% (198) of the undergraduate students do use the computer while 1.5% (3) of the undergraduate students does not as reflected in Table 6. The few students that do not use the computer are aided whenever they have to use the Internet since all of the respondents already indicated that the use Internet facilities.

TABLE 7: PERCENTAGE DISTRIBUTION OF FREQUENCY OF USE THE COMPUTER BY THE RESPONDENTS

Item	Frequency	Percentage
Daily	102	50.7
Once a week	56	27.9
Once a month	34	16.9
Once in six months	9	4.5

Out of the respondents that use the computer, 50.7% (102) use the computer daily, 27.9% (56) use it weekly while 4.5% (9) use it at least once in six months as presented in Table 7.

TABLE 8: THE PERCENTAGE ANALYSIS OF THE LENGTH OF TIME RESPONDENTS HAVE BEEN USING THE COMPUTER

Item	Frequency	Percentage
1-5 years	124	61.7
6-10 years	57	28.4
Above 10 years	20	10.0

As shown in Table 10, 61.7% (124) of the undergraduate students have been using the computer for about a year to five years while 10% (20) have been using it for over ten years.

TABLE 9: THE PERCENTAGE ANALYSIS OF THE DIFFERENT WAYS UNDERGRADUATE STUDENTS GOT THEIR COMPUTER TRAINING.

Item	Frequency	Percentage
School education	46	22.9
Computer training centres	63	31.3
Home training	65	32.3
Through books	5	2.5
Others	22	10.9

Table 9 indicated that most of the undergraduate students 32.3% (65) and 31.3% (63), got their training through home training and computer training centres respectively while 22.9% (46) got their training through school education. 2.5% (5) of the undergraduate students got their own training by reading books.

TABLE 10: THE PERCENTAGE ANALYSIS OF THE LEVEL OF COMPETENCE OF COMPUTER SKILLS POSSESS BY UNDERGRADUATE STUDENTS

	V. Poor	Poor	Average	Good	V. Good
Computer Skills	%	%	%	%	%

1. Performing basic operations e.g. use keyboard	1.0	2.0	29.4	34.3	33.3
2. Word processing	4.0	6.0	33.8	29.4	26.9
3. Use a spreadsheet	8.5	18.4	43.8	18.9	10.4
4. Create and use a Database	12.4	20.9	40.3	17.9	7.0
5. Create/use a power point or graphic file	7.5	16.4	33.3	31.4	19.4
6. Printing of a document	2.5	6.5	24.9	22.4	42.8
7. Use of peripherals e.g. flash drive, blue tooth, etc	3.0	6.5	16.9	24.4	48.8
8. Use of the right interface e.g. connecting a printer to your computer	5.5	11.9	23.4	23.9	33.3

Table 10 indicated that all the respondents that could use computer do so with varying level of competence. Among these respondents, 48.8% are very good in the use of computer peripheral, 42.8% are very good in using the computer to print documents while 33.3% are very good in performing basic operations like using the keyboard to type on computers. Only 7.0% of the respondents are very good in creating and using a database.

TABLE 11: THE PERCENTAGE ANALYSIS OF LOCUS OF CONTROL THAT IS PREVALENT AMONG THE UNDERGRADUATE STUDENTS IN NIGERIA UNIVERSITIES

Locus of control	Frequency	Percent
Internal locus control	137	68.2
External locus control	64	31.8
Total	201	100.0

Table 11 indicated the locus of control that is prevalent among the respondents. The data indicated that 68.2% (137) of the students possess internal locus of control while 31.8% (64) possess external locus of control. This shows that internal locus of control is more prevalent among the students.

TABLE 12: THE PERCENTAGE ANALYSIS INTERNET RELATED SERVICES MOSTLY PERFORM BY THE UNDERGRADUATE STUDENTS IN NIGERIAN UNIVERSITIES

Tasks	Yes		No	
	%	Frequency	%	Frequency
1. Sport	19.9	40	80.1	161
2. Entertainment	46.3	93	53.7	108
3. Education/Academic activities	71.6	144	28.4	57
4. News	29.4	59	70.6	142
5. Health information	15.9	32	84.1	169
6. Online shopping	5.5	11	94.5	190
7. Others	11.4	23	88.6	178

Most of the undergraduate students in Nigeria Universities, 71.6% (144), use Internet resources for educational and academic activities as shown in Table 12. 46.3% (93) use the Internet resources for entertainment purpose while the least activities perform by the respondents is online shopping (5.5% (11)).

Moreover, A Pearson correlation was use to test if there is any significant relationship between computer skills and the use of Internet resources by the undergraduate students in Nigerian Universities. The result is presented in table 13.

TABLE 13: PEARSON CORRELATIONS OF THE RELATIONSHIP BETWEEN THE COMPUTER SKILLS POSSESSED BY UNDERGRADUATE STUDENTS IN NIGERIAN UNIVERSITY AND THE use OF INTERNET RESOURCES

		uses of Internet resources	General computer skill
uses of Internet resources	Pearson Correlation	1	.588(**)
	Sig. (2-tailed)		.000
	N	201	201
computer skill	Pearson Correlation	.588(**)	1
	Sig. (2-tailed)	.000	
	N	201	201

** Correlation is significant at the 0.05 level (2-tailed).

The result of the Pearson Correlation analysis in Table 15 shows that there is a positive significance between computer skills possessed by the student and their use of Internet resources ($r = .588$, $p < 0.05$) at 0.05 level of significant. In essence, students' computer skills have an influence on their use of Internet resources. The more computer skills a student possess the more Internet resources the student makes use of.

TABLE 14: THE MEAN SCORE OF INTERNAL LOCUS OF CONTROL AND EXTERNAL LOCUS OF CONTROL OF THE UNDERGRADUATE STUDENTS IN RELATION WITH THEIR use OF INTERNET RESOURCES

	locus of control	N	Mean	Std. Deviation
Uses of Internet resources	internal locus control	137	15.4745	4.61899
	external locus control	64	14.6719	3.96878

Table 14 depicts the mean scores of internal and external locus of the undergraduate students in relation with their use of Internet resources by the undergraduate students in Nigeria Universities. The mean score of the internal locus of control in relation with their use of Internet resources is $x = 15.47$, $SD =$

4.62 while that of external locus of control in relation to their use of Internet resources is $x = 14.67$, $SD = 3.97$. The results of the t-test analysis in Table 15 shows that there is no significant difference between the internals and the externals in the use of Internet resources ($t_c = .207$ ($df = 199$; $p > 0.05$) at 0.05 level of significant. This means that neither group use Internet resources more than the other. Hence the loci of control of the undergraduate students do not have any influence on the use of Internet resources.

TABLE 15: THE T-TEST ANALYSIS OF THE DIFFERENCE BETWEEN THE INTERNAL LOCUS OF CONTROL AND EXTERNAL LOCUS OF CONTROL ON THE use OF INTERNET RESOURCES

Levene's Test for Equality of Variances			t-test for Equality of Means			
		F	Sig.	T	df	Sig. (2-tailed)
uses of Internet resources	Equal variances assumed	3.207	.075	1.266	199	.207
	Equal variances not assumed			1.199	107.999	.233

* Significance at 0.05 level

Decision: Not significant

Discussion

Demographic Characteristics

The demographic characteristics of the respondents from the study show that the males were 124 (61.7%) while the females were 77 (38.3%) indicating that the males were more than the female. The highest of the respondents' ages were between ages 20 -24 years that is 98 (48.8%) while the least age range were between 30 – 34 years that is 3 (15%) and this showed that most of the respondents are young adults. The respondents were from different levels but those in 100 level have the highest population 69 (34.3%) while those in 500 level have the least 4 (2.0%). The respondents were also from different faculties. Those in Sciences and Health sciences faculties were 95 (47.3%) being the highest while those in the Arts and Education faculties were the least 5 (2.5%).

Internet Resources used by Undergraduate Students in Nigerian Universities

The study revealed that Internet resources used most by the students are Email and Web browsing. 165 (82.1%) and 152 (75.6%) of the students use both the email and web browsing respectively. This is in line with the findings of Rainie and Packel (2001) that stated that out of over 104 million people that use the Internet in the United State, most (93%) use Email and search the Web for information (80%).

Frequency

The study also revealed that out of 82.1% of the respondents that use the Email, 46.8% use it weekly, 19.9% use it monthly while 13.4% use it daily. For the 75.6% respondents that use Web browsing, 43.3% use it weekly, 22.4% use it daily while 10.9% use it monthly. E-mail was the most popular of the Internet resource used by the students. This is comparable to previous studies where e-mail use was high (78%) among medical students in Malaysia. E-mail is the fastest and cheapest means of electronic communication in the world today. Access to this service has increased in recent years in Nigeria due to the proliferation of cyber cafes in many towns and cities, which in turn have reduced the cost of this service and also educational institutions and some organizations, are now providing access to these facilities at a cheaper rate. However, access to e-mail services is not readily available to many people living in rural areas of the country. Moreover, studies done by other researchers show that college students have easy access through direct Internet connections in hostels, libraries, and computer laboratories (Kandell, 1998). It is now commonplace for university students to check their email at friends' apartments, cyber cafes, and even at shopping mall computer terminals while they are on vacation (which are relatively inexpensive). Institutions of higher education encourage use of the Internet through several means. The study also show that the average time spent per searching session by the undergraduate students varies. It was discovered that 31.2% (63) of the respondents spent an average of two hours per searching session, 29.4% (59) spent one hour while 14.9% (30) spent less than one hour per searching session.

Search Engine Rank Order

The study shows that out of the ten search engines given as options for the respondents, Google 41.3% (83) is the most used search engine followed by Yahoo 40.3% (81) by the respondents. They rarely use Northern light, MSN, Dogpie and Looksmart having between 1.0 to 1.5% (2 – 3). Ajuwon (2003) reported that concerning search engines used, Yahoo is the most popular (89.1%), which was used by 93.8% student nurses and medical students (87.3%). According to her, majority of the students, (67.5% student nurses and 72% medical students) have not searched a database before.

Computer Use

The study revealed that 98.5% (198) of the undergraduate students do use the computer while 1.5% (3) of the undergraduate students do not. This means that majority of the student do you the computer or have used the computer before. This shows that the undergraduate students in Nigerian universities are very familiar with the use of computer and thus are utilizing the opportunities that the use of the computer offers for their educational achievement. Morahan-Martin (1998) stated that current incoming students have been raised with modern Internet technology, and computers are not perceived as negatively as they use to be, particularly among males.

Frequency of Use

The study sought from the students how often they make use of the computer. 50.7% (102) of the respondents use the computer daily, 27.9% (56) use it weekly while 4.5% (9) use it at least once in six months. This indicates that the number of undergraduate students that make use of the computer daily is above average.

Length of Time Respondents Have Used Computer

The result indicates that 61.7% (124) of the undergraduate students have been using the computer for about a year to five years while 10% (20) have been using it for over ten years. Surveys of college students conducted by Pew Internet & American Life Project found that one-fifth (20%) reported that they began using computers between the ages of 5 and 8 and by the time they were 16 to 18 years old all of them had begun using computers.

Sources of Computer Training

The results of the data analysis for this study indicated that the highest percentage of the undergraduate students 32.3% (65) got their training in their homes, 31.3% (63) got theirs from computer training centres while 22.9% (46) through school education. 2.5 % (2.5) of the undergraduate students got their own training by reading books. Home training was the highest place the students got their computer training from. Most homes have a personal computer at home and even the students themselves have computers or ready access to the computer. It is a common thing now that computer courses are now being offer in Nigeria right from the elementary schools as could be seen in the school curriculum.

Level of Computer Skills

The students' level of computer skill was analysed in the study. It was discovered that the 98.5% of the undergraduate students in Nigerian universities that use the computer do so with varying levels of competence. 48.8% could use peripherals like flash-drives, Bluetooth and so on, 42.8% could print documents on the computer while 7.0% could create and use a database. 26.9% of the students could use word processor software like Microsoft word, 19.4% could use the power point or graphic files and 10.4% could use spreadsheet. This shows that the undergraduate students possess more competence in the use of computer peripherals than in using Microsoft word, PowerPoint, spreadsheet, and database. This indicate that the level of computer skills possess by undergraduate students in Nigerian universities is low.

Internet Tasks Most Performed

In this study, 71.6% (144) of the respondents use Internet resources mostly for educational and academic activities. 46.3% (93) use them for entertainment purpose while 5.5% (11) do online shopping. 11.4% (23) perform other things on the Internet. Studies done on the use of Internet resources among Nigerian students show that the use of computer and the Internet to aid their academic activities is gradually becoming acceptable but the students have not fully used these facilities (Ajuwon 2003).

Prevalent Locus of Control

The result of the analysis shows that internal locus of control 137 (68.2%) is more prevalent among the students. This implies that majority of the students believe that their own experiences are controlled by their own skill or efforts. They have an inner control that prompts them to study because they believe that "the more they study, the better grades they get" (Gershaw, 1989). Students with an internal locus of control judge outcomes of events to be internally controllable. That is, they believe that their own personal efforts, behaviours, or skills will influence and determine their success academically and they take responsibilities for their actions (Rotter, 1966).

Relationship between Computer Skills and Use of Internet

Resources

The result of the Pearson Correlation analysis showed that there is a positive or strong significance between computer skills possessed by the student and the use of Internet resources $t_{c} = .000$ ($r = .588$, $p < 0.05$). In essence, the computer skills possessed by the students have a significant relationship on their use of Internet resources. The more computer skills a student possesses the more Internet resources the student makes use of. As the level of computer skills possessed by the student increases, so also their use of Internet resources. This implies that the higher the level of computer skills possessed by the students the better they are in the use of the Internet and its resources. Therefore, the higher the level of computer skills the students possess, the higher their use of the Internet resources which invariably will have a good effect on their academic achievements.

The difference between the internal locus of control and external locus of control on the use of Internet resources

The analysis of the data collected on the students' locus of control and Internet resources use showed that there is no significant difference between students with internal locus of control and those with external locus of control on their use of Internet resources. This implies that locus of control of undergraduate students does not significantly influence their use of Internet resources.

In her doctoral dissertation, Welsh (1999) investigated the relationship between Internet use, coping style, expectancies, and locus of control among undergraduates at a large private university in the northeast. Using the Rotter (1966) internal-external control scale, no difference was found in the use of the Internet between the 42 dependent who have external locus of control and 42 non-dependent Internet users who have internal locus of control. However, there was a tendency for dependent users to have a more external locus of control.

The study revealed that locus of control does not have influence on the use of Internet resources by undergraduate students in Nigerian universities.

Conclusion

From the analysis of data and subsequent answering of the research questions;

1. 82.1% and 75.6% of the students respectively make use of the Internet either to check their mails or to browse the web for academic information mainly. 5.5% of the students even perform activities like online shopping, 29.4% listen to news and 19.9% watch sports on the Internet apart from the fact that an ample size 46.3% of the student uses the Internet for entertainment purposes. This is consistent with predictions that have been made that beyond 2004, majority of the people will be Internet users (Internet World Status, 2004). Research by the Pew Internet & American Life Project (Rainie, and Packel 2001) has shown that students seem generally positive about the Internet and its impact on their educational experience. The studies show that majority of university students have a positive attitude toward the Internet and its communication tools. They are comfortable with Internet communication, and even report finding enjoyment while using it for academic and personal reasons. Their Internet habits are split between academic and social uses, and they find it functional for both purposes. An overwhelming number of students feel that Internet communication has positively enhanced their college academic experience. The fact that Internet connectivity now abound on campuses cyber cafés, university libraries and even some universities in Nigeria like Obafemi Awolowo University, BOWEN University and University of Ibadan now provide access to the Internet from the students' classes, and hostels at a subsidized price has made it possible.

2. The study revealed that internal locus of control was prevalent among the

students than the external locus of control. It means that most of the students in Nigerian Universities are in control of their actions, exhibit good behaviour and social relationships. They believe that the effort they put into their studies is reciprocal of what their grades will be. They understand the fact that the more they study the better their grades becomes but not on what the lecturer just decide to give them. They also know that they are responsible for any course of action they might decide to take especially since their parents are not there to supervise them.

3. The study also revealed that the level of computer skills possessed by the student have an influence on their use of the Internet resources. Those students that have very poor computer skills do not make use of the Internet as those with very good computer skills. The higher the level of computer skills possessed by the students the better they are in the use of the Internet and it resources. It is assumed that those having very poor computer skills are assisted while using Internet resources since all the students have used some of the Internet resources one time or the other.

4. The influence of locus of control on the use of Internet resources was found to be insignificant and this is consistent with other findings (Welsh, 1999 and Rotsztein, 2003). From the study, it was discovered that both the internals and the externals use the Internet almost equally. In other words, personality traits do not have influence on the use of the Internet although it has a significant effect on academic achievement. In summary, the relationship between locus of control and Internet use is insignificant.

Recommendations

The following recommendations are hereby made based on the findings and the implications for the development of good computer skills and a better locus of control:

- It may be necessary to take into consideration the locus of control orientation of the students while enrolling them in various universities. Such locus of control will go along way to indicate the attitude of students to their academic pursuits and the kind of information they search for while on the Internet. Indeed in academic counselling, it is recommended that the counsellor, parent or guardian as the case may be should seek to develop the ability, potential, skill, initiative for better self-understanding and to have a desirable behaviour.
- It is also recommended than an internal locus of control as a personality traits should be encouraged and inculcated right from infancy by the parents and guardians. Teachers, guidance counsellors, social workers and other professional helpers are to counsel the students regarding the importance of, and the need for developing an internal frame of mind.
- Finally, it is recommended that students should be encouraged in the use of the computer so as to develop their computer skills which will invariably affect their use of the Internet. Students view the Internet to be very important in their course of learning since they can easily have access to information that may have been hoarded from them in the library. Having the right skills will also enable the students to acquire the needed techniques in searching for useful information on the Internet.

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